

Layout of transistorized ignition

The system comprises:

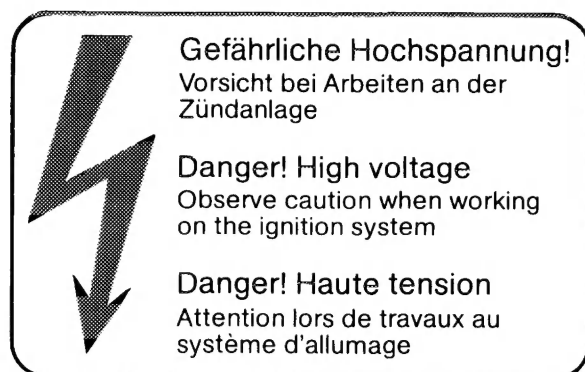
Switching unit
Ignition coil
Pre-resistance 0.4 Ω
Pre-resistance 0.6 Ω

Operation

The ignition coil current is switched by a transistor circuit instead of a contact breaker. The transistor circuit is controlled by the contact breaker.

With contact breaker closed, the switching transistor is conductive. When contact breaker opens, the transistor will close and the ignition coil current will be interrupted. This interruption of the current circuit in primary coil will induce the ignition voltage in secondary coil, the same as in a conventional coil ignition system.

To increase the ignition voltage, the pre-resistance 0.4 Ω is bridged by contact 16 on starter during start.

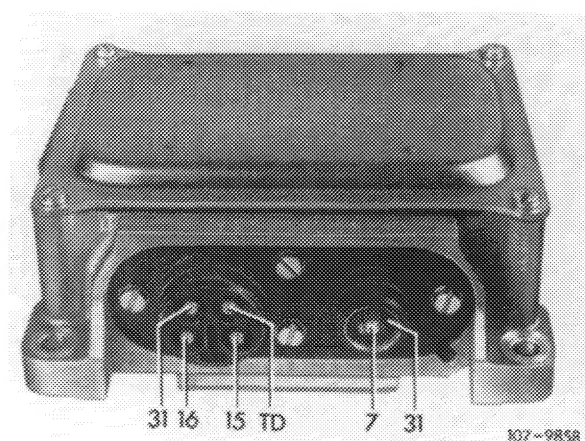


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Switching unit

The switching unit comprises several transistors, resistances and other electronic components in a metal housing. The housing protects the components against mechanical damage and splash water and serves also to dissipate the electric heat. Contacting on switching unit is effected by a 4-point round plug connection with separate coaxial connection for activation.

In the event of repairs, only the complete switching unit can be replaced.



Ignition coil

Layout and external dimensions of ignition coil are similar to those of a normal high-performance ignition coil. However, the coil layout is different. The transformation ratio amounts to approx. 1 : 185, as compared with 1 : 100 for conventional ignition coils.

External identification: blue paintwork.

Pre-resistances

Resistances 0.4 Ω and 0.6 Ω are designed similar to ignition coil pre-resistances used up to now: A ceramic body encloses the resistance coil with projecting connections.

A sheet metal clamp is placed around ceramic body for fastening. The color of this clamp provides information about its resistance value, which is additionally punched in as a number.

Color	Code number	Resistance
anodized, blue	0.4	0.4 Ω
anodized, metallic	0.6	0.6 Ω

General information

On vehicles with transistorized coil ignition systems, do not operate without battery connected.

When using fast chargers for charging vehicle battery, separate battery from remaining vehicle circuits.

Starting assistance with fast chargers is not permitted.

When installing battery, pay attention to correct polarity.

Do not interchange line connections on switching unit (e.g. when testing switching unit in removed condition).

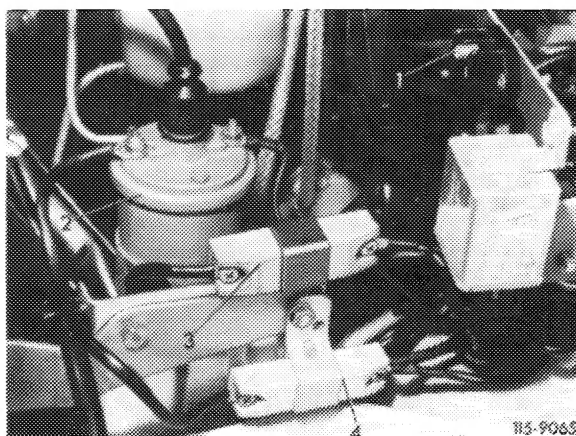
If these instructions are not observed, the switching unit may suffer damage.

Instructions for test jobs

On engines with transistorized coil ignition, rpm and dwell angle cannot always be measured as accustomed.

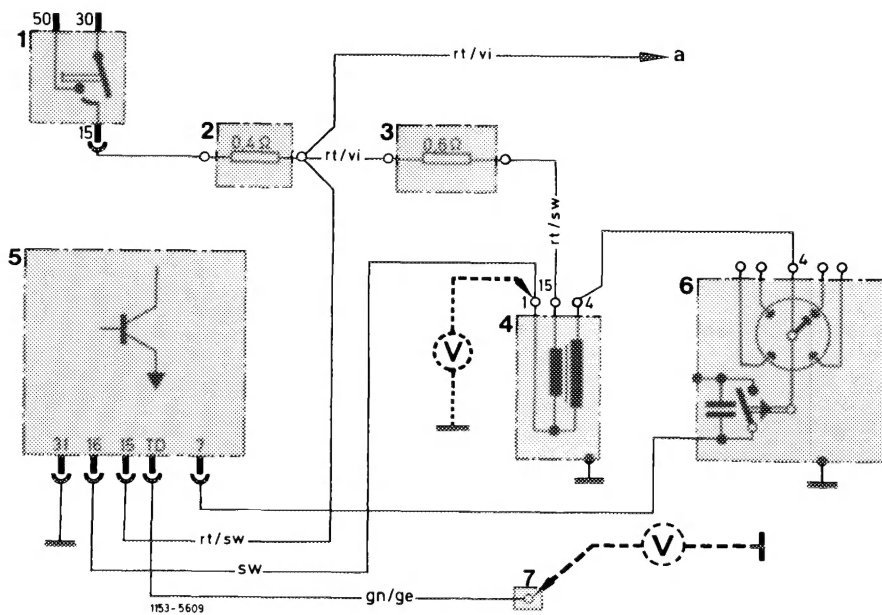
Depending on type of tester used, the ignition system is connected at different points. Be sure to read operating instructions of tester in each case. To facilitate connection of rpm and dwell angle testers, an unused angular cable shoe is screwed to cable connector 7.

- 1 Cable shoe for test connection
- 2 Ignition coil
- 3 Resistance 0.4Ω
- 4 Resistance 0.6Ω



Transistorized coil ignition switching unit — standard switching unit — with Si-transistor

Bosch order No.	installed in model	
0 237 051 024	115	up to model year 1978 (USA)



Wiring diagram

- 1 Ignition starter switch
- 2 Pre-resistance 0.4Ω
- 3 Pre-resistance 0.6Ω
- 4 Ignition coil
- 5 Switching unit
- 6 Ignition distributor
- 7 Cable connector with test terminal TD

a To starter terminal 16

Line colors:
ge = yellow
gn = green
rt = red
sw = black
vi = purple